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Human resource management practices and organizational performance. The mediator role of immaterial satisfaction in Italian Social Cooperatives

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ABSTRACT

The paper deals with the mediating role of immaterial satisfaction between substantive human resources (HR) features and organizational performance. We address this relationship in the Italian social service sector using a survey dataset that includes 4134 workers and 320 not-for-profit social cooperatives. The obtained results show that human resource management (HRM) practices influence immaterial satisfaction and, satisfaction positively impacts on firm performance. However, the impact of the different HRM practices is not the same. In this sense, worker involvement and workload pressure have a positive impact on firm performance; but task autonomy or collaborative teamwork do not have impact on organizational performance.

Key words: Immaterial satisfaction; workload pressure; autonomy; involvement; teamwork; firm performance.

JEL classification: J28, J81, L15, L25, L84, M54

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INTRODUCTION

Research on the relationship between structural HRM practices and firm performance is wide and established. In general, HRM practices have been functional to enhancing employees' skills, commitment and effort, with a view to enhance, in turn, organizational performance (Takeuchi, Lepak, Wang, & Takeuchi, 2007: 1069). Complementary, research has addressed also the impact of structural HRM practices on satisfaction (Takeuchi, Chen, & Lepak, 2009), but only seldom satisfaction has been considered as a factor influencing performance (Ostroff, 1992) and as a mediator between structural HRM practices and performance (Guest, 2002; Messersmith et al., 2011) and further research is called for concerning the triangulation between structural HRM practices, worker satisfaction, and organizational performance (Böckerman & Ilmakunnas, 2012).

The aim of this paper is to analyze the mediating role of immaterial satisfaction between HR dimensions and performance and to distinguish the impacts of HRM practices on the welfare of workers at the individual level, and on performance at the organizational level. We rely on last national Survey on Italian Social Cooperatives (SISC). Data include information about 4134 salaried workers in 320 Italian social cooperatives. Our results show that HRM practices influence immaterial satisfaction and satisfaction positively impacts on firm performance; but the impact of HRM practices is not the same. In this sense, worker involvement and workload pressure have a positive impact on firm performance.

The rest of the paper is structured as follows. The second section reviews the existing literature on the subject and lays out the different hypotheses. The third section introduces data, variables, descriptive statistics and statistical techniques to test the proposed hypotheses. The last section presents the main conclusions.

THEORICAL FRAMEWORK

Economic literature has analyzed the relationship between HRM practices and organizational performance for decades. The paradigmatic paper of Dewey (1917) established that human satisfaction is achieved when individuals can express creativity and critical thought. These aspects are merged in his notion of "creative intelligence," or the capacity of individuals to challenge existing beliefs and habits of thought by assessing and shaping action (Dewey, 1922, 1930). In the context of organizations, the use of creative intelligence (CI) takes the form of a meaningful interaction between the individual and the organizational environment,

as the individual strives to satisfy particular aspirations. The exercise of CI is a potential that, as argued by Dewey and consistently with the later work by Amabile (1983), can be developed from HRM features. In this sense, HRM practices can be considered like a domain where workers can apply CI and achieve immaterial satisfaction, thus impacting on firm performance.

The study of the nexus between HRM practices and performance has been tested in several papers (Combs, Yongmei, Hall, & Ketchen, 2006). However, findings are not always univocal (Wood & Wall, 2007), leaving a question mark on what conditions make specific organizational features (un)effective. Particularly, the role of worker satisfaction has not received sufficient attention until recently (Messersmith et al., 2011). In an organization, the immaterial satisfaction like part of creative intelligence could be higher: (a) when organizational context favors inclusion as a way to promote sense-making, critical enquiry, learning and compatibility between individual and organizational objectives; (b) when individuals have or can develop the skills to meaningfully engage in both autonomous and collaborative work. Therefore, according to this idea, it is possible to define this working hypothesis,

Hypothesis 1. HRM practices positively influence immaterial satisfaction.

The rejection of H1 would imply that HRM practices cannot influence immaterial satisfaction. In other words, they are not a way to develop the individual CI and achieve human fulfillment. In contrast, if we do not reject H1, this result will imply that HRM practices are an element that can be used by the HR management to define the laboral climate of an organization. Moreover, the laboral climate can influence the firm performance. Economic literature has explored the effects of laboral climate on firm performance (Kehoe & Wright, 2010; Li, Frenkel, & Sanders 2011; Takeuchi, Lepak, Wang, & Takeuchi, 2009), sharing the view that satisfaction can represent an important *trait d'union* between HR policies and organizational outcomes (Messersmith et al., 2011). As consequence, we can postulate this hypothesis,

Hypothesis 2. Immaterial satisfaction positively impacts on firm performance.

The rejection of H2 would disagree with the previous papers, immaterial satisfaction not being an element able to improve organizational performance. However, if we do not reject H2, the immaterial satisfaction and the laboral climate could influence the firm outcomes. In this case, it will be necessary to study the HRM practices than can be applied in an

organization like a tool to improve satisfaction and firm performance. In this paper, we consider four HRM practices: task autonomy, collaborative teamwork, involvement, workload pressure.

In conventional HR approaches, autonomy implies that the individual can enjoy substantial freedom, independence, and discretion in scheduling the work and in determining the procedures to be used in carrying it out (Hackman & Oldham, 1976). However, we could say that autonomy implies more than the degree of discretionality exerted in the implementation of day-to-day activities. More fundamentally, autonomy directs to the use of CI to problematize situations, find appropriate ways of acting and set objectives that reflect desired outcomes. This means that the worker not only can select routines which are relevant to the solution of particular problems, or appropriate to habitual circumstances: individuals able to discover new situations are also more likely to act creatively, intelligently and morally when the organizational context allows them to do so (Amabile, 1983; Dewey, 1927; Fesmire, 2003; Gioia & Poole, 1984). Existing results point at the positive impact of autonomy on satisfaction (Biron & Bamberger, 2010; Deci & Ryan, 2000; Sprigg, Jackson & Parker, 2000) and on firm performance (Amabile et al., 1996). However, a negative impact can be observed in economic literature in relation to satisfaction (Castanheira & Chambel, 2010) and firm performance (Hodson, 2002; Mukherjee & Malhotra, 2006; Langfred, 2004). These differences allow us to postulate our hypothesis,

Hypothesis 2a. Task autonomy positively impacts on firm performance.

Other HRM practice that can be considered is the collaborative teamwork. Collaborative teamwork can substantially enlarge the amount and quality of resources available to workers, mainly in terms of supporting relations, reciprocal trust, and knowledge sharing. Through these resources, the team defines a domain where commitment and participation favor the transposition of CI into new action in general, therefore possibly impacting on satisfaction. This supports the possibility of a positive relation between teamwork and immaterial satisfaction. As for performance, in general, a positive relationship is observed. For example, using managerial evaluations of leader support, teamwork cohesion, and organizational performance, Montes, Moreno & Morales (2005) find a strong positive link between teamwork cohesion, organizational learning, and technical and administrative innovation as measures of organizational performance. Lee, Lee & Wu (2010) find a positive impact of HR practices, including teamwork, on firm performance (measured as production efficiency), but the

specific effect of teamwork is not worked out. We hypothesize that the effect on performance is positive,

Hypothesis 2b. Teamwork has a positive impact on firm performance.

Additionally, in this paper, we consider involvement like a HRM practice. Involvement provides a behavioral framework where people are encouraged to articulate and communicate their views, share knowledge on the consequences of previous decisions and reflect on feedbacks, thus influencing each other's perspectives and preferences (Dewey, 1927). A "social" process aimed at understanding problems and situations gets activated, and engagement with decision-making becomes an act of CI which can be expected to increase individual sense of control (self-determination) and accomplishment, not least because it gives voice to intuitions and ideas which can then be verified and reflected into further action (Dewey, 1927; Habermas, 1992; Ford, 1996; Joas, 1996). Consistently, involvement has been regarded as a determinant of workers' satisfaction (Wood & Wal, 2007; Richardson, Danford, Stewart, & Pulignano, 2010). Research results, however, are not unequivocal on this aspect (Cox, Zagelmeyer, & Marchington, 2006; Diamantidis & Chatzoglou, 2011; Holland, Pyman, Cooper, & Teicher, 2011; Zatzik & Iverson, 2011). In relation to organizational performance, Lawler (1986) and Arthur (1994) identify worker involvement as a key element among the determinants of performance (Appelbaum, Bailey, Berg, & Kalleberg, 2000; Guest, 2011; McMahan, Bell, & Virick, 1998; Wood & Wall, 2007). So, in this case we can detect a positive effect related to the performance and an inconclusive effect resulting from the immaterial satisfaction. As consequence, we formulate this hypothesis,

Hypothesis 2c. Worker involvement has a positive impact on firm performance.

Finally, we take into account the workload pressure in the organization. Workload pressure provides an indication of the demands that organizations pose to workers (Bakker et al., 2008; Schaufeli et al., 2009). In field research, workload pressure beyond a certain threshold has been argued to represent an impediment to team (Amabile et al., 1996). However, Kaya, Koc, & Topcu (2010), and Robinson, Roth & Brown (1993) find a positive connection between workload and worker satisfaction, which is taken as an index of job performance. Overall, the relation between workload and performance is expected to be positive, but further testing is needed,

Hypothesis 2d. Workload pressure has a positive impact on firm performance.

The rejection of H2i can be caused by two reasons: (a) the existence of a significant indirect effect through immaterial satisfaction and, (b) the presence of a significant direct effect of the HRM practice on the firm performance. If the signs are different, the total effect of the HRM practices could be non-significant or negative. In contrast, if we do not reject the H2i, the HR manager should promote the HR practice because the firm will improve its performance.

METHODOLOGY

Sample

In this study, we have used the national Survey on Italian Social Cooperatives (SISC, 2006), conducted by the Universities of Brescia, Milan, Naples, Reggio Calabria, and Trento. The survey was composed by different questionnaires addressed to workers (on several aspects of their job and on specific organizational practices) and organizations (on the organization as a whole). We resort to diverse sources of data to contrast the problems connected with common method bias (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003) ¹. The questionnaires were based on validated multiple-item questions, most of which were measured on 1 to 7 or 1 to 5 Likert scales, and were administered by trained staff that supported the respondents on site.

Our final sample was made of 320 organizations including 4,134 salaried workers². The composition of the sample is shown in table 1.

Table 1 Description of the sample

Variable	Description	%
Region	North-west	40.2
	North-east	21.8
	Centre	21.9
	South	16.1
Size	Lower than 15	25.5
	Between 16 and 50	31.5
	Higher than 50	43.0
Legal Form	Type A	78.2
	Type B	21.8

(*) Total number of observations is 320 organizations

As we can see, the social cooperatives under study were located in different regions (40.2% in the North-west, 21.8% in the North-east, 22.0% in the Centre, and 16.0 % in the South of the

¹ The results presented heretofore are based on worker's perceptions concerning substantive practices and satisfaction, and on directors' evaluation of organizational performance. Common method bias (CMB) can significantly impact on these results, most of all when worker perceptions only are involved, hence in the relation between HRM practices and immaterial satisfaction. Insofar as this relation enters in the indirect impact of HRM practices on performance, it can bias results (Podsakoff et al., 2003). Following Bharadwaj, Bharadwaj, and Konsynski (1999) and Podsakoff et al. (2003) we controlled the CMB.

² The initial population was estimated 6,168 active cooperatives at the national level with at least one employee (ISTAT, 2003).

country). In relation to the size of the cooperative, we can observe like 25.5% were small cooperatives, 31.5% were medium-sized cooperatives and 43.0% could be considered large cooperatives, taking into account the number of employees. Finally, we can find two typologies of social cooperatives defined by Italian legal framework: Type A (78.0%) delivers social services, while Type B (22.0%) is configured as an enterprise that reintegrates weak individuals such as disabled, ex-drug addicted, ex-convicted, the mentally ill, and long term unemployed into the labor market.

Main variables

Due to the structure of the database, we could study two levels of variables. In the within level, we studied the HRM practices and immaterial satisfaction; while in the between level we analyzed the organizational performance.

The HRM practices were defined by four elements: Task autonomy, collaborative teamwork, workload pressure, and involvement. To measure the degree of autonomy perceived by individual workers, we used three indicators related to the day-to-day job tasks, handling relations with customers and users, and problem solving. The measurement of collaborative teamwork took into account the amount and resources available to workers, mainly in terms of supporting relations and quality, reciprocal trust, and knowledge sharing. Workload pressure considered pace and intensity of work (difficult objectives and involvement in different activities), meeting stringent deadlines, and responsibilities towards clients and users. Finally, the perceived intensity of involvement in decision-making was measured, basically, through the level of development of interpersonal relations and the participation in the mission and decision making.

Immaterial satisfaction took into account as the variety and creativity of work as the level of personal fulfillment and growth achieved by the worker.

Finally, we measured organizational performance on the basis of directors' self-reports concerning whether the organization had improved service quality and introduced technological and organizational innovations over a three year period.

Methodology

Given the objective of this study, we started by carrying out a descriptive analysis of the observed variables in terms of their position measures and used exploratory analysis techniques to evaluate their covariance matrix. We then used confirmatory factor analysis to

examine the dimensional structure of the theoretical constructs involved in our hypothesis (Bagozzi, 1980, 2010; Fornell & Larcker, 1981; McDonald, 1985).

In order to test our working hypothesis, we evaluated the results of a multilevel model. This methodology is indicated when there are participants that are organized at more than one level. In the database we had workers (first level) in different organizations (second level). The multilevel model was based on two sets of equations that specify the worker-level and organization-level effects on organizational performance (Preacher, Zypher & Zhang, 2010).

At the worker or within level, we are interested in to analyze the relation between HRM practices and immaterial satisfaction [1]:

$$S_{ij} = \alpha_{1j} + \beta_{1j}HRM_{ij} + \varepsilon_{ij} \quad [1]$$

the immaterial satisfaction of the i_{th} worker in the j_{th} organization, S_{ij} , is determined by the HRM processes (HRM_{ij}). The coefficients of the model are represented by the intercept (α) and the slopes (β), being the slopes interpreted like the direct effects of the model in the within level.

On the organization or between level, we were able to model the slopes (β) to vary according to the main characteristics of the organization [2]:

$$\begin{aligned} S_j &= \alpha + \beta_1 HRM_j + \mu_j \\ P_j &= \alpha + \beta_2 S_j + \beta_3 HRM_j + \omega_j \end{aligned} \quad [2]$$

Equation [2] is also a regression model, being S_j the immaterial satisfaction, HRM_j the HRM practices, P_j the organizational performance of the j_{th} organization. These expressions [2] suggested that the slopes of the model varied from organization to organization, and the changes could be explained by certain characteristics, like HRM practices or immaterial satisfaction. The coefficients of the model are represented by the intercept (α) and the slopes (β), being the slopes interpreted like the direct effects of the model in the between level.

The estimation method was Robust Maximum Likelihood (MLR), obtained by using the TYPE=GENERAL TWOLEVEL option (Muthén & Muthén, 1998-2012). MLR estimator is based on maximum likelihood parameter estimates with standard errors that are robust to non-normality (Muthén & Muthén, 1998-2012). This statistical approach enabled us to obtain, test and estimate measurement and/or structural models based on robust statistics with multivariate non-normality and non-independence of observations (Bentler, 2006; Muthén & Muthén, 1998-2012; Satorra & Bentler, 1994; Satorra & Bentler, 2001). At the same time, in order to evaluate the global fit of these models, we present different goodness of fit statistics and indices. To be specific, as well as robust statistic χ^2 , we used the Root Mean Square Error of Approximation (RMSEA), the Comparative Fit Index (CFI) and the Standardized Root Mean Square Residual (SRMR) (Bollen, 1998; Browne et al, 1993; Hu & Bentler, 1999; Jöreskog & Sörbom, 1996). This study made use of the MPLUS 7.4 and Stata 14.0 software.

RESULTS

The descriptive statistics are a first approximation to our database. Annex I shows the descriptive statistics related to the indicators specified in the previous section. From the point of view of HRM practices, we find entities that have developed a high degree of task autonomy [4.25-4.70], team work [5.49-5.85] and workload pressure [4.32-5.17]. The lowest value can be observed in relation to involvement [2.88-3.27]. These organizations reach important level of immaterial satisfaction [4.64-5.20] and performance [3.78-4.31]. In any case, we observe high standard deviations that justified the use of robust estimators.

Annex I also presents the correlations matrix between the different indicators. The table shows how the 6 indicators are strongly related among each other. For this reason, we conducted confirmatory factor analysis (CFA) separately on all the six latent dimensions to provide evidence of convergent validity of our measures.

Table 2 presents the results of the estimated CFA model. The statistics show a reasonable fit ($\chi^2[13] = 1,831.76$, RMSEA = 0.039, SRMR = 0.047 and CFI = 0.901). Internal consistency given by reliability analysis is reasonable (Cronbach's alpha > 0.7; CRC > 0.7 and AVE > 0.5) for all the dimensions and this also points at a *prima-facie* confirmation of construct-identification validity.

Table 2. Measurement model

Latent Dimension	Indicators	Factor Loading	Cronbach's Alfa	CRC	AVE	Goodness-of -fit
Task autonomy (TA)	Autonomy in organizing job tasks	0.727***	0.770	0.709	0.503	$\chi^2_{(432)}:1,831.76$ RMSEA:0.039 CFI: 0.901 SRMR: 0.047
	Autonomy in relations with clients and users	0.710***				
	Autonomy in problem-solving	0.691***				
Collaborative teamwork (CT)	Cooperation	0.698***	0.800	0.702	0.500	
	Support by the management	0.562***				
	The quality of results	0.554***				
	Widespread feelings of trust and respect	0.870***				
	Sharing of knowledge and experience	0.810***				
Workload pressure (WP)	Involvement in different activities	0.658***	0.720	0.703	0.500	
	High responsibilities	0.664***				
	Reaching difficult objectives	0.802***				
	Working at a fast pace	0.687***				
Involvement (I)	Development of interpersonal relations	0.518***	0.770	0.739	0.546	
	Involvement in the mission	0.869***				
	Involvement in decision making	0.830***				
Satisfaction (S)	Variety and creativity of work	0.569***	0.770	0.655	0.428	
	Personal fulfilment	0.650***				
	Personal growth	0.685***				
	On-the-job autonomy	0.714***				
Performance (P)	Service quality	0.927***	0.770	0.884	0.781	
	Service innovation	0.903***				
	Technological Innovation	0.856***				
	Organizational innovation	0.850***				

*p<0.1; **p<0.05; ***p<0.01

Moreover, the analysed structure offers sufficient evidence discriminant validity due to the factor loadings exceed the correlations observed between the dimensions on the validity of multidimensional constructs (Bagozzi 1980; 1982a, 1982b, 1984).

Once we tested the measurement model, we tested our working hypotheses. Table 3 shows the results of the multilevel model for each HRM practice.

Table 3. Results of multilevel model

Model	Est.	R ²	Goodness-of -fit
Task autonomy			
Workers level			
Task Autonomy → Satisfaction	0.226***	0.051	
Organizational level			$\chi^2_{(54)}:213.75$
Task Autonomy → Satisfaction	-0.126	0.004	RMSEA:0.033
Satisfaction → Performance	0.055	0.018	CFI: 0.956
Task Autonomy → Performance	0.065		SRMR: 0.036
Indirect	0.003		
Total	-0.091		
Collaborative teamwork			
Workers level			
Collaborative teamwork → Satisfaction	0.377***	0.142	
Organizational level			$\chi^2_{(88)}:314.662$
Collaborative teamwork → Satisfaction	0.383**	0.147	RMSEA:0.034
Satisfaction → Performance	0.054	0.008	CFI: 0.948
Collaborative teamwork → Performance	0.055		SRMR: 0.035
Indirect	0.036		
Total	0.130		
Workload pressure			
Workers level			
Workload pressure → Satisfaction	-0.033	0.001	
Organizational level			$\chi^2_{(88)}:355.85$
Workload pressure → Satisfaction	-0.337***	0.113	RMSEA:0.033
Satisfaction → Performance	0.170*	0.096	CFI: 0.939
Workload pressure → Performance	0.322***		SRMR: 0.032
Indirect	-0.243		
Total	0.265***		
Involvement			
Workers level			
Involvement → Satisfaction	0.335***	0.112	
Organizational level			$\chi^2_{(54)}:157.55$
Involvement → Satisfaction	0.154	0.024	RMSEA:0.026
Satisfaction → Performance	0.014	0.048	CFI: 0.975
Involvement → Performance	0.217**		SRMR: 0.032
Indirect	0.004		
Total	0.384**		

*p<0.1; **p<0.05; ***p<0.01

Our models consider the relationship between HRM practices and satisfaction at the within level. As we can observe, the models show a strong positive impact of these practices on satisfaction [Task Autonomy → Satisfaction: 0.226; Collaborative teamwork → Satisfaction: 0.377; Involvement → Satisfaction: 0.335]. If compared with autonomy, job features that show a high degree of relationality such as teamwork and involvement have the golden share in influencing satisfaction. However, there is no relationship between a specific HRM

practice, workload pressure, and immaterial satisfaction [Workload pressure \rightarrow Satisfaction: -0.033]. So, if an organization wants to improve the satisfaction between workers, it should not design practices related to workload pressure. In any case, we cannot reject H1 due to HRM practices that support collaborative work, worker involvement and autonomy positively influence immaterial satisfaction.

When we analyze the between level, we can observe the relationship between HRM practices at organizational level and the firm performance, taking into account the mediator role of immaterial satisfaction. Table 3 shows the total effects. These effects are the sum of direct and indirect effects. Direct effects directly flow from HRM practices to performance and indirect effects can be thought as the product of the impacts of HRM practices on satisfaction and of satisfaction on performance.

The overall relation between task autonomy and performance is not significant [Total: -0.091] due to direct and indirect effects are close to zero. This result points at a possible detrimental role of autonomy with respect to knowledge exchange and learning from peers, diffusion of information, diverging objectives and coordination of activities. This result may be also connected with the specific governance structure of social cooperatives, where most workers are members and may enjoy a high degree of discretion in task accomplishment.

Collaborative teamwork shows a positive, but negligible and insignificant impact on performance [Total: 0.130], while the impact of involvement is positive and statistically significant [Total: 0.384]. So, the primary function of teamwork appears more relevant in increasing worker wellbeing and in empowering worker skills than in fostering firm performance directly [Collaborative teamwork \rightarrow Satisfaction: 0.383]. The result related to involvement would imply that involvement processes significantly influence product quality and innovation only when they improve satisfaction [Involvement \rightarrow Performance: 0.217].

Workload pressure shows a positive and large significant impact on organizational performance [Total: 0.265]. This does not contradict the importance of job demands coming from the organization in determining performance. The direct impact of workload on performance [Direct: 0.322], however, is partially compensated for the one of satisfaction [Indirect: -0.243],

Finally, it is possible to evidence an impact of immaterial satisfaction on performance in the case of workload pressure [Direct: 0.170]. As consequence, a higher level of immaterial satisfaction limited by an policy of worked pressure will promote a higher performance. However, there is no relationship between task autonomy, collaborative teamwork or

involvement [Direct: 0.014-0.055]. This result can be caused by the influence of some characteristics of the organization. In this sense, aspects like region, legal form or size could determine the role of satisfaction on performance and introduce a moderator element in the proposed model.

Table 4 show the conclusions in terms of our working hypothesis.

Table 4. Results in terms of working hypothesis

H	Hypothesis	Expected sign	Result
<i>H₁</i>	HRM practices positively influence immaterial satisfaction.	+	Non-reject
<i>H₂</i>	Satisfaction positively impacts on firm performance	+	Non-reject
<i>H_{2a}</i>	Task autonomy positively impacts on firm performance	+	Reject
<i>H_{2b}</i>	Teamwork has a positive impact on firm performance	+	Reject
<i>H_{2c}</i>	Worker involvement has a positive impact on firm performance	+	Non-reject
<i>H_{2d}</i>	Workload pressure has a positive impact on firm performance	+	Non-reject

As we can observe, HRM practices influence immaterial satisfaction and satisfaction positively impacts on firm performance; but the impact of HRM practices is not the same. In this sense, worker involvement and workload pressure have a positive impact on firm performance; but task autonomy or collaborative teamwork do not have impact on organizational performance. However, this result could be influenced by the environment and characteristics of the organization.

CONCLUSIONS

The aim of this paper was to analyze the mediating role of immaterial satisfaction between HR dimensions and performance. In the light of our results, there is a positive relationship between HRM practices and immaterial satisfaction and between satisfaction and firm performance. In line with existing research (Ostroff, 1992), we show that satisfaction with intrinsic aspects of the job is relevant in improving performance. These results are highly coherent with the ones by Messersmith et al. (2011: 1107), who measure the mediating effects of workers' attitudes and behaviors in the HRM practices-performance nexus by using structural equation modeling. However, our contribution differs from theirs in terms of practices considered, sector of the economy (nonprofit vs public sector) and measures used (self-reported vs administrative). Moreover, our results show that the role of different HRM practices is not the same. In this sense, worker involvement and workload pressure have a positive impact on firm performance; but task autonomy or collaborative teamwork do not have impact on organizational performance.

The obtained results have important implications. First, we identify specific domains, like cooperatives, on which action can be taken in order to improve, at the same time, workers satisfaction and the quality of services that users receive. Second, we theorize that the relationship between substantive practices (defined by workers' involvement, quality of teamwork, task autonomy, workload) is mediated by immaterial elements of satisfaction. Eventually, we show that the dimensions of individual satisfaction that are most conducive to improved service quality at the organizational level are the immaterial ones, connected with creativity, fulfillment and involvement.

There are some limitations in our study. The measurement of organizational performance is based on the service quality. It would be interesting to take into account financial or accounting criteria that could complement the measurement of organizational performance. Methodologically, we are not able to establish causation because we do not carry out fully controlled and randomized experiments, and the cross-section design of our study does not allow to single out unobservable fixed effects, possible endogeneity problems and time dynamics. Finally, we have been dealing with one sector only (social services), and one organizational form (the not-for-profit social cooperative). Future research may improve this limitations and envisage a more in-depth study of the interaction between workers' and users' wellbeing.

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Annex I. Descriptive statistics and correlation Matrix

		Mean	Std.Dev	Task	Users	P. Solv	Coop	Support	Quality	Trust	KShar	Involv	Respon	Diffic	WPace	Relation	Mission	Mission	PersDev	Auton	SelfFul	Creativ	ProdQual	InnoServ	InnoServ
AT	Task	4.70	1.96																						
	Users	4.68	1.88	0.53																					
	P. Solv	4.25	1.95	0.52	0.51																				
TW	Coop	5.49	1.56	0.12	0.09	0.03																			
	Support	5.72	1.48	0.13	0.12	0.05	0.36																		
	Quality	5.85	1.46	0.14	0.09	0.05	0.39	0.42																	
	Trust	5.55	1.43	0.20	0.13	0.08	0.55	0.38	0.40																
	KShar.	5.61	1.40	0.18	0.14	0.06	0.56	0.43	0.43	0.68															
WP	Involv	4.92	1.90	0.09	0.04	0.03	0.16	0.17	0.21	0.17	0.19														
	Respon	5.17	2.04	-0.01	0.00	-0.06	0.08	0.09	0.11	0.07	0.14	0.40													
	Diffic	4.32	1.85	-0.02	-0.01	-0.03	0.01	0.05	0.06	0.01	0.02	0.33	0.45												
	WPace	4.62	1.80	-0.02	-0.01	0.03	0.01	0.05	0.07	0.01	0.01	0.39	0.28	0.45											
I	Relation	3.27	1.09	0.17	0.09	0.09	0.22	0.30	0.21	0.29	0.27	0.10	0.06	0.07	0.02										
	Mission	3.13	1.24	0.19	0.05	0.11	0.12	0.21	0.19	0.19	0.19	0.10	0.09	0.10	0.06	0.45									
	Decision	2.88	1.26	0.21	0.09	0.13	0.12	0.22	0.20	0.21	0.20	0.10	0.08	0.11	0.09	0.41	0.74								
S	PersDev	5.20	1.67	0.21	0.14	0.12	0.24	0.32	0.26	0.28	0.30	0.10	0.08	0.03	0.02	0.37	0.37	0.36							
	Auton	4.92	1.49	0.46	0.32	0.31	0.22	0.26	0.22	0.31	0.30	0.12	0.04	0.01	0.01	0.30	0.28	0.30	0.51						
	SelfFul	4.64	1.59	0.23	0.13	0.13	0.25	0.33	0.25	0.29	0.31	0.16	0.11	0.06	0.07	0.31	0.29	0.29	0.54	0.52					
	Creativ	5.07	1.48	0.23	0.12	0.11	0.25	0.27	0.25	0.32	0.32	0.25	0.18	0.16	0.10	0.27	0.25	0.25	0.37	0.37	0.44				
P	ProdQual	4.31	0.75	-0.04	-0.04	-0.05	0.00	0.05	0.01	0.01	0.00	0.02	0.06	0.00	0.07	0.04	0.01	0.02	0.04	0.00	0.04	0.00			
	InnoServ	4.23	0.73	-0.01	-0.03	-0.02	0.04	0.08	0.06	0.04	0.05	0.07	0.07	0.03	0.04	0.06	0.07	0.05	0.08	0.03	0.07	0.06	0.51		
	InnoTech	3.98	0.80	-0.04	-0.03	0.00	-0.01	0.02	-0.03	0.00	0.00	0.06	0.06	0.07	0.12	0.03	0.02	0.02	0.06	0.01	0.06	0.06	0.33	0.50	
	InnOrg	3.78	0.80	-0.04	-0.06	-0.03	-0.04	0.02	-0.08	-0.02	-0.02	0.04	0.05	0.07	0.08	0.06	0.03	0.03	0.02	0.00	0.01	0.03	0.41	0.44	0.54

Source: Authors' calculations on SISC 2007 (Survey on Italian Social Cooperatives 2006)